

REMARKS

The Office Action mailed on July 20, 2005 has been carefully reviewed and considered. Claims 1-19 are previously pending and Claims 1-19 stand rejected. In the foregoing Amendments, Claims 1-4, 8, 12 and 19 have been amended. Support for these amendments can be found in the specification and the claims of the application as filed. No new matter has been added. Claims 1-19 are currently pending in the application.

Applicants respectfully request entry of the foregoing Amendments and reconsideration of the present application in light of the amendments above and the remarks below.

Objection to the Specification

The Office Action objected to the Abstract under MPEP §608.01(b). The Abstract has been amended and thus, this objection is traversed.

The 35 U.S.C. § 112, Second Paragraph Rejection

Claims 1, 8, 12 and 19 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention. Applicants submit herein a proposed amendment to Claim 1, 8, 12 and 19, which are believed to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Thus, this rejection is respectfully traversed.

The 35 U.S.C. § 103 Rejection

Claims 1-19 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Mochizuki¹ ("Mochizuki") in view of Nee,² ("Nee") among which claims 1, 8 and 12 are independent claims. Without admitting that Mochizuki and Nee are prior art and reserving the right to establish that they are not, Applicants respectfully disagree with this rejection.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.³

Applicants respectfully assert that the present invention is not obvious for at least two reasons. First, the Office Action has failed to demonstrate a motivation to combine the references that satisfies the motivation to combine standard embraced by the Federal Circuit. Second, even if the references were properly combined, the combination still fails to teach or suggest all of the elements claimed by the present invention.

In order to adequately set forth an obviousness rejection under 35 U.S.C. § 103(a) based upon a combination of references, the Office Action must show that a motivation to combine the references exists. Applicants respectfully submit that the Office Action has failed to satisfy this standard. In the case of *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998), the Federal Circuit specifically set forth the requirements that must be met by an examiner when an obviousness rejection is made based upon a combination of references. The Office Action "must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no

¹ U.S. Patent No. 6,320,842.

² U.S. Publication No. US2002/0186651.

³ M.P.E.P § 2143.

knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *Id.* at 1357. There are three possible sources for a motivation to combine references: "the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *Id.* Merely indicating that the invention is obvious to one with ordinary skill in the art based upon the combination of references is wholly inadequate. *Id.*

The Federal Circuit stressed the importance as to why the Office Action must clearly explain the motivation to combine references instead of simply stating that a motivation exists:

If such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields, the Board could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection. To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.

(Emphasis added.) *Id.* Here, the Office Action provides the same explanation for combining these references as that which was soundly rejected by the Federal Circuit. The Office Action states that "it would have been obvious for one skilled in the art at the time of invention was made to use the M-ary orthogonal keying modulation scheme of Nee in the system of Mochizuki since the system of Mochizuki is not limited to the specific modulation schemes." See page 3 of the Office Action. Thus, Applicants respectfully submit that the Office Action has failed to show a motivation to combine these references.

Even if the references were combined, the combination still fails to teach all of the claimed elements in the present invention. For example, Claim 1 of the present invention recites in part:

b) at reception:

- the signal received (R) is processed in N M-ary orthogonal keying (MOK) demodulation channels, giving N data blocks (B_1, B_2, \dots, B_N),
- said N data blocks are grouped together in series to reproduce the transmitted data. (emphasis added)

More specifically, FIG. 2 and its corresponding description state that a “circuit 13 has N outputs s_1, s_2, \dots, s_N each emitting the rank of the signal with the greatest energy. These outputs are connected to N code tables $14_1, 14_2, \dots, 14_N$ which makes it possible to retrieve the N codes corresponding to these N ranks and emit the N corresponding data blocks B_1, B_2, \dots, B_N .” See page 10 of the specification of the application.

The Office Action, however, alleges that FIGS 3, 5, 7 and 10 of Mochizuki disclose the claimed element of “the signal received (R) is processed in N M-ary orthogonal keying (MOK) demodulation channels, giving N data blocks (B_1, B_2, \dots, B_N), said N data blocks are grouped together in series to reproduce the transmitted data.” Applicants respectfully disagree with this allegation. For example, FIG. 5 of Mochizuki essentially discloses a third reception unit in the spread spectrum communication apparatus. See Col. 5, lines 36-37 of Mochizuki. Mochizuki further describes that the “outputs from the correlation units 22 and 23 are input to the demodulation unit 25. The demodulation unit 25 performs phase comparison between correlation outputs corresponding to two continuous signals ... The parallel data demodulated by the parallel-to-serial converter 26 and output.” See Col. 5 line 65 to Col. 6 line 5 of Mochizuki. Contrary to the present claimed invention, Mochizuki fails to disclose or suggest a circuit 13 that outputs N outputs which are further connected to N code tables.

The Office Action correctly states that Mochizuki differs from the claimed invention in that the modulation scheme is not MOK modulation scheme. See page 3 of the Office Action. The Office Action, however, asserts that “Nee discloses means for divide in the data to be transmitted into N blocks (12, 14); means for processing the bocks in parallel in N M-ary orthogonal keying modulation channel (16, 18) and means for transmitting.” See page 3 of the Office Action. Nee essentially discloses an M-ary orthogonal keying (MOK) system that

“modifies orthogonal Walsh codes using a complementary code to improve the auto-correlation properties of the Walsh codes, thereby enhancing the multipath performance of the MOK system while maintaining the orthogonality and low cross-correlation characteristics of the Walsh codes.” See the summary section of Nee. Applicants respectfully submit that Nee, just like Mochizuki, also fails to disclose or suggest a circuit 13 (in a receiver) that outputs N outputs which are further connected to N code tables.

In other words, Mochizuki, in one aspect, discloses a CDMA system, which uses DBPSK or DQPSK modulations. During the time of reception, data are added and demodulated in parallel without having been previously selected. Nee essentially discloses a device using a MOK modulation in which data are selected but not combined in parallel.

In the data transmission process of the present invention, multi-MOK modulation is combined with phase modulation. The term “combined” means that, in one aspect, the MOK modulation part of the receiver drives the non coherent part of the receiver. It is not an addition of MOK modulation with non coherent modulation. In the process of the present invention, a stream of selected data is transmitted and processed.

The MOK modulation and the phase modulation are very different devices because the MOK modulation can distinguish from phase modulation with the fact that it requires the data to be selected. Therefore, it is not conceivable, for the one skilled in the art to use a process which selects data in a device based on phase modulation.

Accordingly, neither Mochizuki nor Nee discloses or teaches a circuit 13 (in a receiver) that outputs N outputs which are further connected to N code tables. Applicants respectfully submit that a desired outcome that the invention provides cannot be used as the motivation to combine the references if there is no such teaching in the references. Since neither Mochizuki nor Nee teaches or suggests a combination between Mochizuki and Nee, Applicants contend that there is no teaching to combine.

Even assuming for the sake of argument that Mochizuki and Nee were combined, the combination would still fail to render the present invention obvious because neither Mochizuki nor Nee nor a combination of both discloses or suggests a circuit 13 that outputs N outputs which are further connected to N code tables. Accordingly, one of ordinary skill in the art would not combine Mochizuki and Nee, because even if they were combined, the combination would still fail to disclose or suggest each and every element disclosed in Claim 1. At least for these reasons stated above, Claim 1 should be patentable over Mochizuki in view of Nee under §103. Since Claims 8 and 12 include similar limitations as Claim 1, Claims 8 and 12 should also be patentable.

If the independent claims are valid, the claims that depend from the independent claims should also be valid as matter of law. See Jenric/Pentron, Inc. v. Dillon Co., 205 F. 3d 1377, 1382 (Fed. Cir. 2000). Since Claim 2-7, 9-11 and 13-19 depends from allowable independent Claims 1, 8 and 12, Claims 2-7, 9-11 and 13-19 should also be patentable as matter of law.

Conclusion

Based on all of the above, Applicants believe all claims now pending in the present application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

A petition for extension of time for one (1) month is enclosed. No additional fees are believed to be due at this time. However, please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

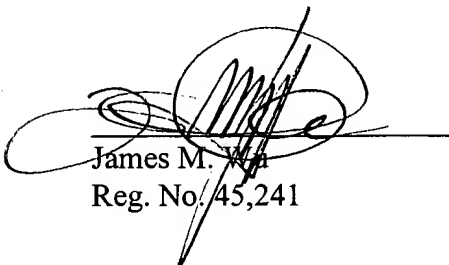
Applicants thank the Examiner for carefully examining the present application and if a telephone conference would facilitate the prosecution of this application, the Examiner is invited

to contact Jim Wu at (408)282-1885.

Respectfully submitted,

THELEN REID & PRIEST, LLP

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James M. Wu
Reg. No. 45,241

Thelen Reid & Priest LLP
P.O. Box 640640
San Jose, CA 95164-0640
Tel. (408) 292-5800
Fax. (408) 287-804